

EXHIBIT
for
Request for Qualifications
Design Architect Services

New Data Center Facilities
Davidson and Rutherford Counties, Tennessee
SBC Number: 529/031-01-2007

1. PROJECT OVERVIEW

The State of Tennessee, Office for Information Resources (OIR) engaged IBM to take the results of a Gartner Disaster Recovery study, showing the need for two data centers for business continuity, and develop a first level conceptual architecture, timeline, site evaluation and project budget. Tennessee intends to construct two new, stand alone data center buildings based on a Statement of Requirements Report that was developed by IBM. Each building will be approximately 35,000 square feet (SF) in total area with 15,000 square feet of raised floor. Each will be constructed within a 25 mile radius of each other and of the existing data center in Nashville. Four sites have been tentatively selected as candidates for the construction project to be completed over the next 5 years.

The need for two buildings, each with 20,000 square feet of raised floor was initially identified in a January 2006 Gartner Inc. Business Continuity and Disaster Recovery report. The Gartner recommendations were for a dual data center solution located within a limited distance (25 – 40 miles) to facilitate the recovery of applications in the event of a disaster at one of the data centers. The existing data center is not a suitable solution due to power and building structural concerns.

To achieve a reasonable balance of disaster recovery capability and project cost, Tier III buildings, as defined by the Uptime Institute, were used as the basis for this effort. A Tier III facility minimizes downtime by the use of resilient systems. Dual electric and communications feeds to the building, reduction of single points of failure in power distribution and cooling are elements of a Tier III design. In Tennessee, with tornados being the major threat, enhanced wind resistance must be designed into each building.

The State of Tennessee's team identified and evaluated multiple potential sites as candidates for the two data centers. Based upon screening criteria derived from the requirements associated with Tier III reliability, seven existing parcels of land in the Nashville area were reviewed. IBM has evaluated and scored and made recommendations for each property. Of these seven sites, four parcels were determined to be the better locations and cost estimates to develop these sites were provided. Three of the four are on existing State-owned property at the RS Gass boulevard location and the Ellington Agricultural Center site. The fourth site is privately owned and located in Smyrna.

The site evaluations are presented in detail in section 7 of this document. The top ranked site is the RS Gass Boulevard Masonic Home location followed by the privately owned Smyrna location and the state owned Ellington Center. The second RS Gass Hilltop location is ranked fourth. Based on our findings, IBM feels that two State of Tennessee owned sites, RS Gass – Masonic Home location and the Ellington Agricultural Center, and the Smyrna Jones Property Regional Airport location should be pursued to construct the two data centers. Budgetary cost summaries for the building are presented for all four locations. Three sites are listed so that one site can serve as a backup location, should one of the first two choices develops a problem.

The Statement of Requirements details IBM's recommendations for the physical data center facility design specifications for a data center of a Tier III level. The raised

floor space, critical electrical and cooling support systems are sized for future growth and a future modular increase to even greater IT facility support requirements. For example while cooling systems will be installed to meet the anticipated near term (5-10 year) load, the chilled water pipes installed as part of the initial construction are sized to support additional cooling systems anticipated over the next 20 years. The same principal was applied to the electrical distribution system.

The anticipated gross area of each building is approximately 35,000 square feet. The new data center will accommodate some office space, the 15,000 SF raised floor data center, and required support areas. The estimated population is up to 47 people over three shifts. To minimize the expense, the basic structure of both buildings is the same. One of the two buildings is planned to accommodate a Command Center with an additional maximum 25 people, with the other building housing a print facility.

The overall design objective is to obtain a new facility that is functional, efficient and architecturally expressive of the functions housed within while being sensitive and supportive of the existing community and context of the area surrounding this site.

Budgetary cost estimates are presented for each of the locations. Depending upon the site that is selected for each of the buildings, the budget costs can range from approximately \$17,800,000 to \$25,900,000. Factors affecting the project estimates are the site acquisition and preparation costs, and the command center / print facility.

The purpose of this engagement was to refine the requirements, develop conceptual system descriptions and budgetary estimates. The design effort of this engagement is limited to a conceptual building and floor plan, and the single line electrical and mechanical drawings necessary to define the scope and budget for the effort. Drawings are found in section 8 of this document, which describe graphically the building space and a possible IT equipment layout; the critical electrical power and cooling systems; and the location of the building on the four sites.

2. DESIGN NARRATIVE

PROJECT DESCRIPTION:

The focus of this project has been to assist the State of Tennessee with developing a detailed Statement of Requirements for two new Data Center Facilities located in or around Nashville, TN. IBM worked with Tune Design Architecture and the State of Tennessee to identify the physical requirements for the design of this new facility, develop conceptual building and site drawings, and estimate construction costs and schedule for the new Data Center Facilities.

1. ARCHITECTURAL AND INTERIOR DESIGN:

Given the “mission critical” nature of the facilities and its contents, the State of Tennessee Data Centers are first and foremost envisioned as a successful environment for computers; One that provides the system redundancies required for efficient, continuous, uninterrupted operations and communications.

A quality data center must also provide a successful environment for the people responsible for its operation. The office and support spaces should offer relief from the artificial environment of the computer room by emphasizing daylight, visual contact with the outside and more humanizing elements.

The siting of the facility will respect its surroundings. It is anticipated that the new data center will be a stand-alone building but will be strongly influenced by the context of surrounding areas. Generous open spaces and landscaping will soften the impact of the center even further. The exterior materials are envisioned to be brick and decorative masonry units with concrete block back-up, storefront glazing, solar louver shades and composite metal panels. These materials will be articulated to maintain the scale and character of the surrounding area.

A secure equipment yard will be constructed to provide security for outside equipment.

2. SPECIAL STRUCTURAL CRITERIA

Slabs on grade shall be designed for a minimum 150 psf live load and the concentrated wheel load of an 8000 pound fully loaded lift truck. Standard foundations are anticipated with drained granular fill beneath slabs and vapor barrier. It is recommended that no live load reductions be taken for data center floors.

Lifting support structure shall be provided for equipment parts requiring removal for maintenance such as chiller heads, pump casings, etc. These loads shall be factored into the roof structure or be provided by a separate structural support system above mechanical equipment rooms. In addition, the roof structure shall be designed to support special loads imparted by hanging pipe supports.

Any spray applied fireproofing of steel structure, if required, should be a high density cementitious product that has a sealer to minimize the risk of flaking and delamination.

BUILDING SHELL

1. EXTERIOR WALLS

Data center exterior walls shall provide adequate protection from temperature, humidity and moisture, and shall serve as a security barrier against intrusion. Thermal criteria shall be minimally in accordance with ASHRAE Standard 90. The degree of security protection will be determined based on an overall site security risk assessment conducted by State of Tennessee security staff. The exterior architecture will be designed to be compatible with the other community buildings. Exterior wall construction components shall be designed to be a brick with block backup or other "hardened" wall systems that provide adequate impact and intrusion protection appropriate to the site.

2. FENESTRATION

Optimum outside awareness shall be provided at office and public support areas with high performance, insulated store front glazing.

There are limited glass penetrations at the computer room walls placed to provide some interior visual communication between certain spaces.

3. ROOF

Basic elements of the roof design shall include minimum 1/4 inch per foot slopes to drain and complete vapor barrier protection above the data center space. The roof will be sloped to the exterior walls to eliminate internal drainage through the data center space. Equipment traditionally located on the roof surface will be located on the surrounding grade areas instead of on the roof wherever possible in order to minimize roof penetrations into the data space.

The roof materials consist of a light weight concrete on metal deck with three-ply modified bitumen roofing system. Due to the critical nature of the building contents, water tightness is of utmost concern hence roof material are recommended to be the highest quality the project can afford. The roof will be designed for tornado uplift.

4. BUILDING MODULE

The building should have a structural frame design that will establish an interior building module that will integrate ceiling and partition systems, office sizes, corridor dimensions, lighting, etc. The recommended computer space planning module is 2'-0" x 2'-0" which coincides with the raised access floor panel sizes. The current concept plan is based on a bay spacing at the computer area. If possible, the data center will be adjusted to minimize columns within the space in order to maximize flexibility of the rack layout. The one-story solution benefits from larger bay sizes, since the columns only support the lighter roof loads instead of floor and roof loads.

BUILDING CIRCULATION AND CORES

1. AISLES AND CORRIDORS

A circulation system of primary and secondary corridors has been defined in the concept stage. Corridors will be constructed of fire rated drywall partitions and heavy use areas, such as the loading dock, storage and staging shall be constructed of concrete block.

2. TOILETS

Toilet rooms shall have ceramic tile floors and walls and ceiling hung toilet partitions are recommended. Toilet accessories shall be stainless steel toilet fixtures shall be vitreous china commercial grade and counter tops shall be plastic laminate finish.

3. JANITORS' CLOSETS

Provide janitors' closets with terrazzo mop basins and storage shelving for cleaning supplies. Consider placing hot water heaters here to minimize piping runs to the restroom lavatories.

4. BREAK ROOM

The design anticipates providing a vending employee break room area along with required utilities for the machines, a refrigerator, microwave oven and countertop with sink. Incorporate with break room / lunch room seating area where possible. This area must be attractively designed to provide visual relief for employees as well as efficient food dispensing. It is assumed that vending services within the data center will be most useful for employees. Provide seating capacity for 8-12 people.

5. TELECOMMUNICATIONS ROOM

The telecommunications room / area located on raised floor will serve as a switchboard for all cabling from internal and external services of data processing to all end-users within the building.

BUILDING FUNCTIONS

1. ENTRANCES AND LOBBY

A single visitor's entrance security control point shall be developed at the lobby of the building. The reception area must provide an inviting, attractive entrance for the facility while providing security from unwanted visitors and operating security system monitoring systems. The program has allowed for a small, modest lobby since visitors will not be regular or plentiful.

A single employee entrance with secure sallyport should be provided, if site constraints allow, off of the employee parking lot. All entrances must be accessible by the handicapped. Entrances to the facility should be kept to a minimum for adequate security control. All exterior doors will require security badge access or remote door control from the security desk.

2. OFFICES

All offices shall be modular in dimension and shall conform to State of Tennessee standards. It is anticipated that the vast majority of office space will be open workstations. Minimizing the number of office sizes will allow for maximum flexibility and simplified rearrangement.

3. CONFERENCE ROOMS

Conference room partitions shall be insulated with sound absorbing wall materials from floor to underside of structural deck above and shall be finished in accordance with State of Tennessee standards.

4. RAISED FLOOR AREA / COMPUTER ROOMS

Provide raised floor area with minimum 30 inches free access floor. A depressed structural slab is intended for the slab-on-grade data space in order to avoid ramped access.

Raised floor panels are recommended to be supported on a rigid stringer understructure system that provides floor stability even when many floor tiles have been removed for underfloor servicing. Floor covering must be high-pressure laminate. Concrete filled panels are recommended for all machine areas.

5. LOADING DOCK / SHIPPING AND RECEIVING

This function must have direct proximity to the truck dock and to the service access into the computer room for ease of equipment delivery and service. A

small receiving area is included in this space including area for staging of equipment.

6. TRUCK DOCK

The truck dock is anticipated to have 1 truck bay, 13'-0" wide minimum, sized for 55'-0" long tractor-trailers. Hydraulic powered dock levelers are recommended. A separate area should be dedicated to the placement of the trash compactor-container with access to the hopper directly from the dock surface. The program requirements for recycling and short term deliveries (i.e. overnight mail) will be adjusted as requirements are further defined.

Overhead coiling doors and secured access with a buzzer and intercom for after-hours delivery monitoring are recommended.

7. TRASH AREA

Provisions for confidential waste destruction/disposal are not required by the State of Tennessee. Methods of paper recycling need to be determined.

INTERIOR FINISHES

1. CEILING

Suspended acoustical tile ceilings and gypsum wallboard ceilings shall be placed throughout the facility except at designated mechanical rooms and service spaces where the ceiling will interfere with piping, equipment or overhead wire management. Ceiling height in general office areas shall be a minimum of 10'-0" above finished floor with a 10'-6" height preferred. Higher ceilings may be appropriate at lobby if required by design. Computer rooms shall also have minimum 10'-0" ceilings over top of raised access floor elevations due to the possible presence of tape storage silos.

The ceilings tiles selected for offices shall be standard commercial office quality. Computer Room tiles shall incorporate a vapor retardant finish, flake resistant core and incorporate a high NRC rating

2. LIGHTING

Lighting levels must be consistent with energy conservation and State of Tennessee requirements. Lighting design must consider both the quality of the work environment and the task that is to be performed. Due to the current trend toward PC usage at every workstation, indirect lighting is recommended to reduce screen glare within office areas. Special lighting features should be limited to lobby, conference rooms, break rooms, and other more public spaces.

3. WALLS AND FINISHES

In general, for reasons of economy, most walls shall be painted gypsum drywall, although a washable vinyl fabric wall covering may be considered for high traffic areas. The data center / raised floor walls should also be finished with a vapor retardant finish.

Room for trash storage and janitor closets must be spray-glazed for cleanliness and elimination of odors. Masonry shall be used in accordance with State of Tennessee Requirements and in heavy abuse areas.

4. DOORS AND HARDWARE

All access doors for computer areas shall be 42 inches clear width or 72 inch double doors (two minimum). Door heights, materials and styles shall be in accordance with State of Tennessee facility standards. Internal secured spaces will require the coordination of magnetic locks for card key access. Particular attention shall be placed on resolving conflicts between security goals and life safety / egress requirements.

5. ACOUSTICS

The project design must consider all aspects of the building (exterior, interior, mechanical, electrical, structural) in efforts to control noise.

Use STC (Sound Transmission Class) ratings not less than:

General office space, computer room	40
Executive offices	45
Conference rooms	50

Make special provision to avoid noise transmission through ductwork from mechanical equipment. Special vibration isolation measures shall be implemented for floor mounted equipment susceptible to transmitting structure borne, low frequency rumble. (e.g. UPS).

6. FLOOR FINISHES

Generally, carpet should be used throughout except at service spaces, computer raised floor and food service areas. Proper sealers must be used in service areas and on concrete slab/floor under the raised floor area to prevent dusting. Vinyl composition tile is recommended for those areas not covered by carpet, raised floor, or sealed concrete.

FURNISHINGS

1. FURNITURE

Furniture for the new data facility is anticipated to be provided in accordance with State of Tennessee standards for both offices and open workstations. The scope of work covered by this design criteria document and State of Tennessee Requirements has excluded office furniture from the building costs and has assumed this to be part of a separate budget for fixtures, furnishings and equipment.

2. SIGNS

The need for an interior signage system for direction and identification has not been discussed with State of Tennessee. Generally, directional signage is not required since only authorized employees are staffing and using the facility. Also, identification signage is usually not desirable in order to minimize the public awareness of the location of the critical data center operations. There may be a safety need for identification signage at equipment spaces such as battery rooms and generator rooms. Building Evacuation signage should be provided as required by State of Tennessee Standards or local codes

3. ART AND GRAPHICS

The use of artwork to enhance the office areas and public spaces was not identified by State of Tennessee and is assumed to be not within the scope of the contract.

4. AUXILIARY EQUIPMENT

Provisions for orderly location and installation of auxiliary equipment items including fire extinguishers, legal boards, bulletin boards, fire hose cabinets, drinking fountains, lighting switches, receptacles, fire alarms, thermostats, etc. shall be made. These are to be coordinated with the module and partition system.

PLUMBING

1. WATER SERVICE

Domestic and fire protection system water will be provided from the water utility system from a nearby water main. A second water main supply should be identified to provide the redundancy for the critical cooling tower water makeup system for the data center cooling. Alternatively a water storage tank should be utilized for this purpose.

2. DOMESTIC WATER

The domestic water supply will provide for cold and hot water distribution to the facility. Copper pipe shall be used throughout. The water supply will be protected by a reduced pressure backflow preventer. Hot water shall be supplied by electric hot water heaters provided at or near the restrooms. The Standard Building Code Plumbing code and local codes will be the basis for the design and installation.

3. SANITARY SEWER

Sanitary sewers will connect to the city utility system. Sewer connections will be sized per codes for all fixtures. Systems will be designed and installed per the International Building Code Plumbing and City of Nashville local plumbing codes.

4. STORM SEWERS

Roof drains shall collect and drain by exterior gravity rain leaders to the sides of the building and not through the machine room space. The leaders will connect to an underground storm water system for flow to the city storm water system (if available) and/or storm water detention areas. A storm water detention system designed to State of Tennessee and local codes will be required.

5. NATURAL GAS

Natural gas service will be from the local utility gas mains and reduced in pressure from the city system with a service pressure regulator and utility meter,

if gas is required for boiler or space heating needs. (Electric heating is planned for the office area air side by VAV cooling / heating system)

6. FIRE PROTECTION

The overall building will be fully sprinklered with a wet pipe system for ordinary hazard and in compliance with local codes and the NFPA standards.

The computer equipment raised floor sprinklers will be designed and installed as a double interlocked, pre-action (dry pipe) sprinkler system per the NFPA and local codes.

An FM 200 (or equivalent gas) gaseous flooding suppression will be planned for the under floor area in the main machine room.

A combination of ceiling and under-floor smoke detectors in the machine room and other IT equipment raised floor areas throughout the building will comprise the primary fire detection system. The machine room will also utilize an early warning smoke detection system (VESDA) to alert of an early incident, but not operate the suppression system. The same detection system will operate with the pre-action system and with the gaseous suppression below the computer room raised floor.

MECHANICAL

1. MECHANICAL COOLING SYSTEMS

The following mechanical design narrative outlines a design which is based on the following preliminary estimated cooling loads:

- Initial load in the computer machine room (15,000 SF) (@ 60w/sf) – 256 tons
- Expansion (future) load based on 15,000 SF (@ 120 w/sf)- 512 tons
- Rest of building (offices, core area, equipment rooms) – 45 tons

The future expansion load is anticipated to not be installed initially, but space is provided for the future equipment (chiller, cooling tower and pumps) and connections to cross connect to the Day 1 initial systems and are suggested to be included in the initial installation.

2. CHILLERS, COOLING TOWERS AND PUMPS

Provide for an initial two (2) centrifugal water cooled chillers at a nominal capacity of 320 tons plus space and piping provisions for one future identical unit. One unit will be redundant and each alone will be capable of handling the full load up to the initial distributed load level of 60 w/sf. The third (future) unit will be added to maintain the redundancy when any additional load is added through the potential building expansion of the machine room. Piping connections and

housekeeping pads will be installed initially to provide for the future installation with minimal disruption.

Matching cooling towers likewise will be installed initially with space and piping hookups for a third cooling tower after the machine room expansion. The towers will be piped and valved to allow any one tower to serve any one chiller. Cooling towers will utilize VFDs to reduce energy costs.

Primary chilled water pumps and condenser water pumps will also be provided to match the chiller and cooling tower combination for an initial N + 1 redundancy level with the provision for a set of third pumps for the future chiller and tower. Three secondary chilled water pumps will be provided for two feeds to two data center chilled water loops and a third secondary pump for the remainder building loop. Primary loop pumps shall also utilize VFD for energy considerations.

3. COMPUTER ROOM AIR CONDITIONING (CRAC) UNITS

Chilled water CRAC units will be provided for the distributed cooling in the computer machine room; other raised floor areas and redundant CRAC units in the UPS rooms. The computer machine room is anticipated to require an initial fourteen (14) units including redundancy based on a unit's usable sensible capacity of approximately 24 tons. Piping connections should be provided for the future installation of an additional 12 (12) future units in the computer machine room growth area. CRAC units (redundant) are also planned for the UPS rooms and smaller capacity floor mounted CRAC units or ceiling installed CRAC units are planned for the other critical non-computer machine raised floor areas including the Printer room or Command Center and similar raised floor areas.

4. AIR HANDLING UNITS

Air handling units will be provided for the conditioned fresh air makeup to all raised floor areas and for the office and core area space cooling and heating requirements. The raised floor areas will use a dedicated fixed volume fresh air makeup unit with air ducted to the area adjacent to the CRAC units return plenums. Two variable air volume (VAV) units with chilled water cooling coils and electric reheat VAV boxes will supply ducted air conditioning to the office areas.

Air handling and ventilation units are also to be provided for the electrical equipment rooms. The loading dock will use building air and include unit heaters for winter operation when required.

5. SECONDARY CHILLED WATER PIPING LOOP

A chilled water piping loop will be designed to provide increased redundancy through a secondary chilled water piping distribution system to the critical CRAC units in the raised floor areas. The loop will comprise two loops and include a multi directional supply and return with cross connection between the two loops to allow maximum chilled water redundancy to the machine room CRACs. Pipe will be run under the raised floor in "trenches" to reduce the effect of any leakage, and to keep the pipe out of the air flow discharge air stream from the CRACs.

6. REDUNDANT WATER SUPPLY

The city water makeup supply to the building should provide for a dual path of water to the facility from a different street if available and depending on the chosen site location. The purpose is to ensure the cooling towers have a continuous supply of makeup water and that the domestic water for consumption has some redundancy, in case of a broken water line in the street. An alternative is to provide for a storage tank of domestic water for the critical purposes. If a tank is used, the size should be to accommodate the critical water needs based on the evaporation rate during a peak design day.

7. HVAC CONTROL SYSTEM

The system shall consist of a direct digital control (DDC) system which is further integrated into an overall building management system (BMS). A dedicated data center monitoring system will also be planned for the primary data center critical power and cooling equipment with a "tie-in" to the BMS.

ELECTRICAL

1. ELECTRICAL SERVICE AND TRANSFORMERS

The building data center electrical load is based on an ultimate load of 120 watts per square foot (w/sf) in the computer machine room. The initial computer machine room raised floor area is 15,000 square feet (SF). The ultimate capacity required for the computer machine room IT equipment power, the cooling for the computer machine room, and the remaining building functions including the office area is approximately 1,800 KW. However, the initial load can be sized at 60 w/sf for the 15,000 SF "computer machine room. Electrical utility service to the site should be two 4,000 amp, 480 volt feeders from two separate transformers. Although two separate electrical utility services are recommended, if a single utility service is provided, each transformer should have a utility disconnect switch so that a single building transformer can be utilized, when maintenance is being performed on the other transformer. The two utility transformers will be the beginning of the separate "A" and "B" electrical systems for the data center.

2. MAIN BUILDING PANEL

There will be two main building 4000 amp, 480 volt panels. Each panel should contain a tie circuit breaker to the other panel, so that it can be totally isolated for maintenance needs. Each panel should have a main utility circuit breaker and an interlocked circuit breaker feed from the parallel generator panel. These two circuit breakers will act as the automatic transfer switch. Open transition switching is permissible. These two panels will continue the "A" and "B" electrical systems for the data center.

3. BACKUP GENERATORS

Multiple 2000 KW diesel generators should be installed in an N+1 configuration (N+2 with a single utility feed) to provide redundancy to the utility service. The final generator load will be approximately 5,500 KW. The generators must be connected to a parallel switchgear system. The system must have provisions to add future generators when the power density of 120 w/sf is evident. The output from the parallel switchgear should provide open transition power to each of the two main building switchboards and to a third circuit breaker where a load bank can be connected to allow for testing of each generator at full load. 96 hours of backup fuel is recommended for the generators.

4. UNINTERRUPTIBLE POWER SYSTEM (UPS) AND DISTRIBUTION

Initially three 500 KVA, 450 KW, 480 volt UPS module should be installed at each main switchboard. This will provide the 60 w/sf capacity at 15,000 SF of computer machine room space at an N+1 redundancy level. UPS System A will be redundant to UPS System B. The UPS system will have the capability to connect two additional UPS modules on each main switchboard to increase the capacity to 120 w/sf at 15,000 sf. There should always be an N+1 parallel redundant configuration. There should be a separate and distinct UPS maintenance bypass installed to allow for the removal of the UPS system, if needed, and still power the load from the utility / backup generator system is desired.

Each UPS system should have a dedicated output bus. Each panel should contain a tie circuit breaker to the other panel, so that it can be totally isolated for maintenance needs. Power Distribution Units (PDUs) should be connected to the respective UPS system. The "A" PDUs will be connected to UPS A and the "B" PDUs will be connected to UPS B. This system will allow the two-corded IT equipment to be connected to both the "A" and "B" UPS electrical systems. Single corded IT equipment should be powered from a static switch device, which will be fed from both the "A" and "B" UPS electrical systems. PDUs sized at 150 KVA or 225 KVA with four (4) 42 circuit breaker panels and the capability to connect Remote Distribution Cabinets (RDCs) should be considered, depending upon the final configuration of IT equipment to be installed.

5. MECHANICAL SYSTEMS ELECTRICAL POWER

There shall be both, "A" and "B", mechanical panel boards. Also, install a "C" mechanical power board, connected to an automatic transfer switch (ATS), which will be fed from both the "A" and "B" main building panels. The three mechanical panels will provide for N+1 mechanical system redundancy. This electrical system arrangement will allow for maintenance to be done on any one of the three mechanical panel boards and still allow for the mechanical systems to function in a non-redundant manner.

3. SPACE PROGRAM

DATA CENTER BUILDING 1 - SPACE PROGRAM

Area	People Capacity Bldg. 1	Net SF Feet	Required Bldg. 1 SF	Comments
Raised Floor				
Server Area	N/A	7,000	7,000	Production, Test, Growth
Main Frame	N/A	1,000	1,000	Production
Tape	N/A	1,000	1,000	Mainframe and servers
Tape Racks	N/A	1,000	1,000	Environment, Security, Fire Required
Print	N/A	2,000	2,000	Separate secure room
Telecom	N/A	2,000	2,000	Separate secure room
Development Lab	N/A	1,000	1,000	Separate secure room
	0		15,000	Total Raised Floor
Office Area				
Director	1	260	260	Office
Data Processing Network and LAN	3	64	192	Cubicles
Distributed Computing – Agency Support	1	150	150	Office - Manager
Distributed Computing – Agency Support	8	64	512	Cubicles – Support Personnel
Distributed Computing - Enterprise Support	1	150	150	Office – Manager
Distributed Computing - Enterprise Support	9	64	576	Cubicles – Support Personnel
Output Distribution / Mainframe Computing	1	250	250	Office – Assistant Director
Output Distribution / Mainframe Computing	2	150	300	Office – Manager
Output Distribution / Mainframe Computing	11	64	704	Cubicles – Support Personnel
Print Operations	6	30	0	Desks / Chairs on Raised Floor Above
	43		3,094	Total Office Area
Support Space				
Lobby	N/A	400	400	Front Entry
Loading Dock	N/A	430	430	With Covered Exterior Dock
Break Room	N/A	400	400	Sink, Refrigerator, Microwave
Housekeeping Space	N/A	100	100	Mop Sink and
Toilet Rooms	N/A	250	500	Two
Locker Room	N/A	200	200	Lockers Only
Staging and Storage	N/A	1,165	1,165	For IT Use
Situation Room	N/A	800	800	For Normal and Disaster Use.
Conference Room	N/A	320	320	One
Break Out Room	N/A	100	200	Two
Security	2	N/A	200	Security Control Area
Maintenance Support	2	N/A	200	Shop, Parts, Equipment
	4		4,915	Total Office Area
Utility Spaces				
Electrical Rooms	N/A	4,000	4,000	Switchgear, UPS, Batteries
Mechanical Equipment	N/A	3,000	3,200	Chillers, Pumps, Sprinkler
Emergency Generators	N/A	N/A	N/A	Outside
Cooling Towers	N/A	N/A	N/A	Outside
Transformers	N/A	N/A	N/A	Outside
	0		7,200	
Circulation of Non-Raised Floor Space			4,976	Walls, Aisles, etc.
Total Building No. 1	47		35,185	

DATA CENTER BUILDING 2 - SPACE PROGRAM

Area	People Capacity Bldg. 2	Net SF Feet	Required Bldg. 2 SF	Comments
Raised Floor				No Print and Enterprise Command Center
Server Area	N/A	7,000	7,000	Production, Test, Growth
Main Frame	N/A	1,000	1,000	Production
Tape	N/A	1,000	1,000	Mainframe and servers
Tape Racks	N/A	1,000	1,000	Environment, Security, Fire Required
Enterprise Command Center	0	2,000	2,000	Separate secure room (up to 25 people)
Telecom	N/A	2,000	2,000	Separate secure room
Development Lab	N/A	1,000	1,000	Separate room
	0		15,000	Total Raised Floor
Office Area				
Director	1	260	260	Office
Data Processing Network and LAN	3	64	192	Cubicles
Distributed Computing – Agency Support	1	150	150	Office - Manager
Distributed Computing – Agency Support	8	64	512	Cubicles – Support Personnel
Distributed Computing - Enterprise Support	1	150	150	Office – Manager
Distributed Computing - Enterprise Support	9	64	576	Cubicles – Support Personnel
Output Distribution / Mainframe Computing	1	250	250	Office – Assistant Director
Output Distribution / Mainframe Computing	2	150	300	Office – Manager
Output Distribution / Mainframe Computing	11	64	704	Cubicles – Support Personnel
	43		3,094	Total Office Area
Support Space				
Lobby	N/A	400	400	Front Entry
Loading Dock	N/A	430	430	With Covered Exterior Dock
Break Room	N/A	400	400	Sink, Refrigerator, Microwave
Housekeeping Space	N/A	100	100	Mop Sink and
Toilet Rooms	N/A	250	500	Two
Locker Room	N/A	200	200	Lockers Only
Storage and Staging	N/A	1,165	1,165	For IT Use
Situation Room	N/A	800	800	For Normal and Disaster Use.
Conference Room	N/A	320	320	One
Break Out Room	N/A	100	200	Two
Security	2	N/A	200	Security Control Area
Maintenance Support	2	N/A	200	Shop, Parts, Equipment
	4		4,915	Total Office Area
Utility Spaces				
Electrical Rooms	N/A	4,000	4,000	Switchgear, UPS, Batteries
Mechanical Equipment	N/A	3,000	3,200	Chillers, Pumps, Sprinkler
Emergency Generators	N/A	N/A	N/A	Outside
Cooling Towers	N/A	N/A	N/A	Outside
Transformers	N/A	N/A	N/A	Outside
	0		7,200	
Circulation of Non-Raised Floor Space			4,976	Walls, Aisles, etc.
Total Building No. 2	47		35,185	